SEPARATOR FOR SHREDDED TOBACCO

This invention relates to a separator for shredded tobacco.

The processing of shredded tobacco comprises a separation stage in which the shredded tobacco is treated both to separate it from the air and to separate foreign bodies from it such as stones, tobacco agglomerations etc.

This stage is currently carried out using a separator consisting of a casing provided at its bottom with a rotary valve for discharging the tobacco and at its centre with a rotating mesh cylinder or other system for withdrawing the air to be fed to the filter.

This system results in tobacco degradation because of the rubbing of the tobacco against the separator wall and the fact that the product is withdrawn via the rotary valve.

The object of the invention is to eliminate these drawbacks by providing a device which enables the separation to be effected in a simple, comfortable and reliable manner, without the product undergoing "manipulation".

This and further objects which will be apparent from the ensuing description are attained according to the invention by a shredded tobacco separator as described in claim 1.

The invention is described in detail hereinafter with reference to the accompanying drawing showing a schematic vertical section through a separator according to the invention.

As can be seen from the drawing the separator of the invention comprises substantially a vertical column 2 of rectangular cross-section provided with a connector for an entry duct 4 for the shredded tobacco and a

perforated plate 6 inclined towards a duct 8 for discharging waste such as stones, tobacco agglomerations, etc.

The column is connected at its bottom to a pipe 10 for feeding compressed air originating from a centrifugal blower 12.

At the upper end of the column there is provided a dome 14 housing a mesh conveyor 18 extending about drive and deviation rollers 20, a horizontal portion 22 of the conveyor 18 being positioned substantially to close the mouth of the column 2.

An air withdrawal hood 16 is present above the horizontal portion 22 of the conveyor 18.

The dome 14 presents an inclined lower part 24, the upper side of which can be adjusted so that it lies substantially in contact with the conveyor, its lower side being substantially in contact with a discharge belt 26.

A compressed air diffuser pipe 30 is provided facing that portion of the conveyor 18 downstream of the portion 22 which closes the mouth.

The separator of the invention operates in the following manner:

the shredded tobacco fed by the conveyor belt 34 is transferred through the duct 4 to the interior of the column 2, where the suitably regulated compressed air flow feeds the tobacco particles towards the conveyor 18 while allowing the foreign bodies such as stones and tobacco agglomerations to deposit by gravity onto the perforated plate 6 and then descend towards the discharge duct 8.

At the same time those particles which reach the conveyor 18 deposit thereon and remain retained there along a short portion of the horizontal path as they are subjected to suction. As soon as the particles leave the region of influence of the suction they fall onto the inclined surface 22 with the help of

the compressed air blowing from the diffuser, to be then transferred to the discharge belt 26.

From the aforegoing it is apparent that the separator of the invention enables the said stage to be effected easily and comfortably, without the product undergoing "manipulation".